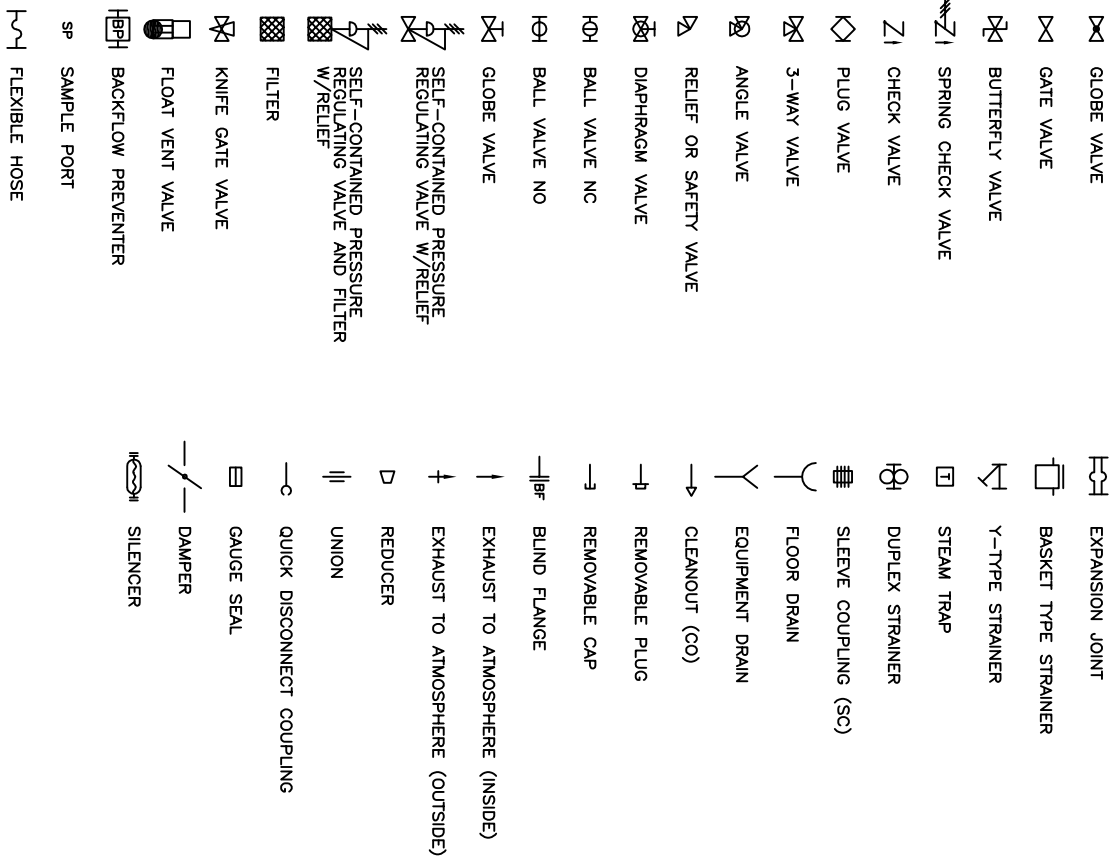


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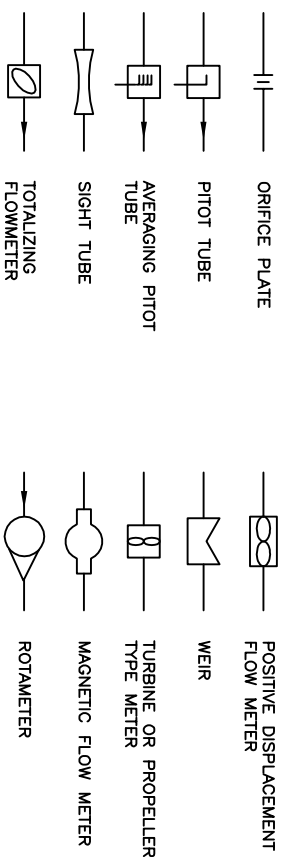
VALVE AND PIPING SYMBOLS



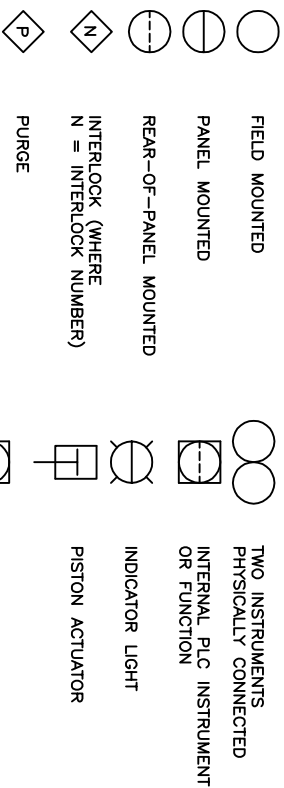
VALVE OPERATOR SYMBOLS



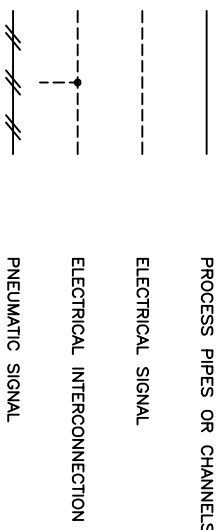
PRIMARY ELEMENT SYMBOLS - FLOW



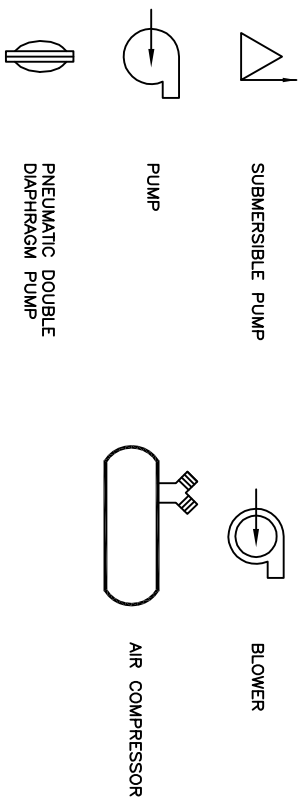
GENERAL INSTRUMENT SYMBOLS



LINE SYMBOLS



EQUIPMENT SYMBOLS



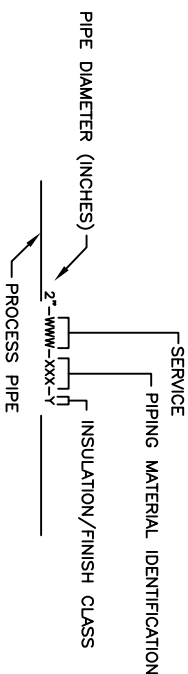
SERVICE ABBREVIATIONS

AS	AIR SUPPLY
AR	AIR, ATMOSPHERIC PRESSURE
ASP	AIR SPARE
BW	BACKWASH
CA	COMPRESSED AIR
CW	CONTAMINATED GROUNDWATER
CDS	CONDENSATE
D	DRAIN
EFT	EFFLUENT
EXH	EXHAUST
GM	GROUNDWATER
NPW	NON-POTABLE WATER
P	PRODUCT (LNAPL)
PW	POTABLE WATER
S	SANITARY
SC	SECONDARY CONTAMINANT
SL	SLUDGE
SMC	STEAM MIGRATION CONTROL
SP	SAMPLE PORT
SS	STORM SEWER
STM	STEAM
SVE	SOIL VAPOR EXTRACTION
TF	TOTAL FLUIDS
V	VENT
VAP	VAPOR

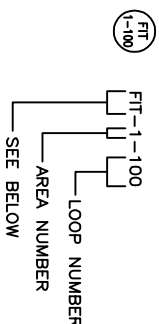
PIPING MATERIAL IDENTIFICATION

CPVC	CHLORINATED POLYVINYL CHLORIDE
CSP	CARBON STEEL PIPE
CP	COPPER
CCP	CORRUGATED METAL PIPE
CMP	CAST IRON PIPE
CI	DUCTILE IRON PIPE
DIP	GALVANIZED STEEL PIPE
GAL	POLYETHYLENE PIPE
PE	POLYPROPYLENE PIPE
PVC	POLYVINYL CHLORIDE PIPE
PVCH	POLYVINYL CHLORIDE HOSE
RCP	REINFORCED CONCRETE PIPE
RUB	RUBBER HOSE
SS	STAINLESS STEEL PIPE
VCP	VIRIFIED CLAY PIPE
INSULATION/FINISH CLASS	
I	INSULATED
H	HEAT TRACED
P	PAINTED
N	NO FINISH

PROCESS PIPING IDENTIFICATION



INSTRUMENT IDENTIFICATION



F	FLITER ELEMENT	LEVEL SWITCH HIGH-HIGH
FE	FLOW INDICATOR	RUN LIGHT
FI	FLOW INDICATOR AND TRANSMITTER	MOTORIZED VALVE
FT	FLOW INDICATOR AND TOTALIZER	OPEN(MONITARY)-CLOSE-AUTO
FO	FLOW INDICATOR AND TOTALIZER	OC4
FN	FAN	PAH PRESSURE ALARM HIGH
FO	FLOW TOTALIZER	PCV PRESSURE CONTROL VALVE
FR	FLITER REGULATOR	PI PRESSURE INDICATOR
FSL	FLOW SWITCH LOW	PSH PRESSURE SWITCH HIGH
HQA	HAND-OFF-AUTOMATIC	RV RELIEF VALVE
HS	HAND SWITCH	SV SOLENOID VALVE
KY	TIMER	TA TEMPERATURE ANALYZER
LAH	LEVEL ALARM HIGH	TE TEMPERATURE ELEMENT
LAH LEL	LEVEL ALARM HIGH-HIGH	TI TEMPERATURE INDICATOR
LEL	LOWER EXPLOSIVE LIMIT	TSW TEMPERATURE SWITCH HIGH
LI	LEVEL INDICATOR	TSI TEMPERATURE TRANSMITTER
LSH	LEVEL SWITCH HIGH	

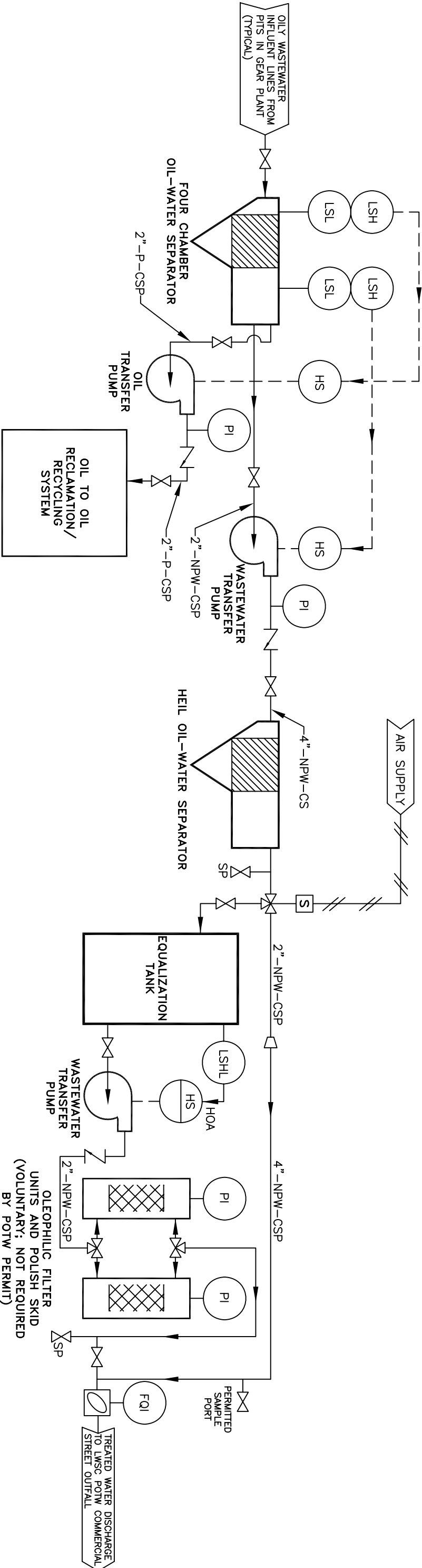
PIPING AND INSTRUMENTATION LEGEND



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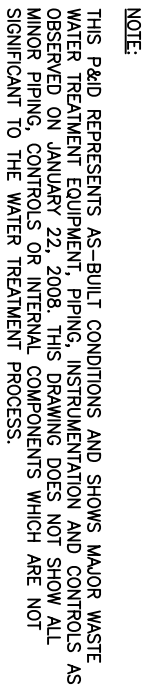
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NOTE:

THIS P&ID REPRESENTS AS-BUILT CONDITIONS AND SHOWS MAJOR WASTE WATER TREATMENT EQUIPMENT, PIPING, INSTRUMENTATION AND CONTROLS AS OBSERVED ON JANUARY 22, 2008. THIS DRAWING DOES NOT SHOW ALL MINOR PIPING, CONTROLS OR INTERNAL COMPONENTS WHICH ARE NOT SIGNIFICANT TO THE WATER TREATMENT PROCESS.

				GENERAL ELECTRIC – RIVER WORKS FACILITY 1000 WESTERN AVENUE LYNN, MASSACHUSETTS			
				PIPING AND INSTRUMENTATION DIAGRAM FOR GEAR PLANT HEIL OIL-WATER SEPARATOR WASTE WATER TREATMENT SYSTEM			
Designed by				-			
Drawn by				C. DESIATA			
Scale:				NONE			
Drawing No.				130156--HEILOW'S			
Sheet No.				--			
Revision No.				-			

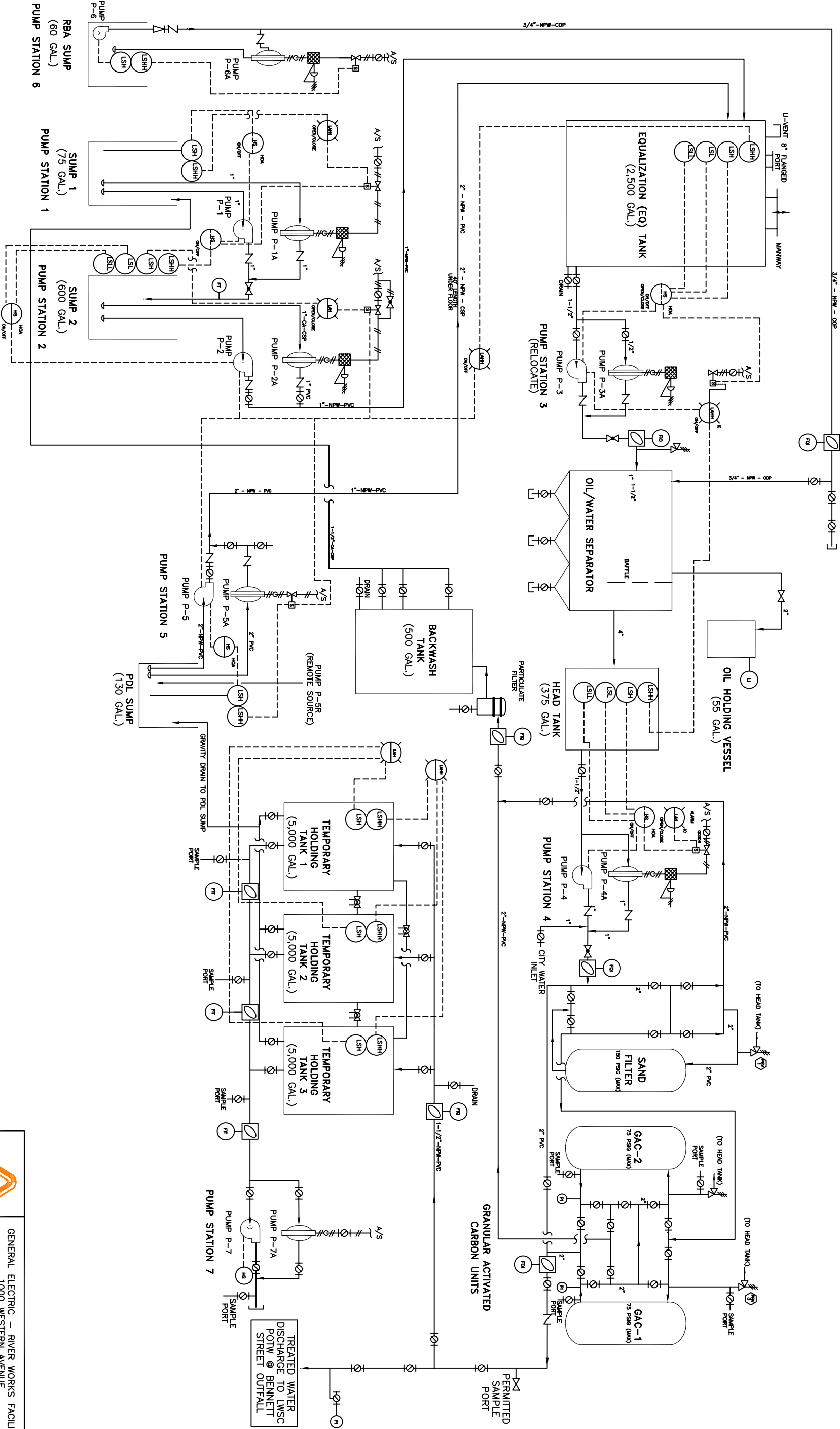




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GENERAL ELECTRIC – RIVER WORKS FACILITY
1000 WESTERN AVENUE
LYNN, MASSACHUSETTS

PIPING AND INSTRUMENTATION DIAGRAM
FOR BUILDING 29N
WASTE WATER TREATMENT SYSTEM



- NOTES:**
1. GROUNDWATER AND LUMP ARE RECOVERED FROM SUMPS IN BUILDING 64 BASEMENT FLOOR FOR TREATMENT IN THIS SYSTEM.
 2. P-1 THROUGH P-7 ARE ELECTRIC CENTRIFUGAL PUMPS.
 3. P-1A THROUGH P-7A ARE PNEUMATIC DOUBLE OVERHEAD PUMPS USED FOR BACKUP.
 4. THIS PLAN REPRESENTS AS-BUILT CONDITIONS AND SHOWS MAJOR WASTE WATER TREATMENT EQUIPMENT, PIPING, INSTRUMENTATION AND CONTROLS AS OBSERVED ON JANUARY 22, 2008. THIS DRAWING DOES NOT SHOW ALL MAJOR PIPING, CONTROLS OR INTERNAL COMPONENTS WHICH ARE NOT SIGNIFICANT TO THE WATER TREATMENT PROCESS.

REV	DATE	BY	CHK'D	APR'VD	DESCRIPTION/ISSUE

GENERAL ELECTRIC – RIVER WORKS FACILITY
1000 WESTERN AVENUE
LYNN, MASSACHUSETTS

DESIGNED BY
C. DESAIZA

CHECKED BY
T. KEMPER

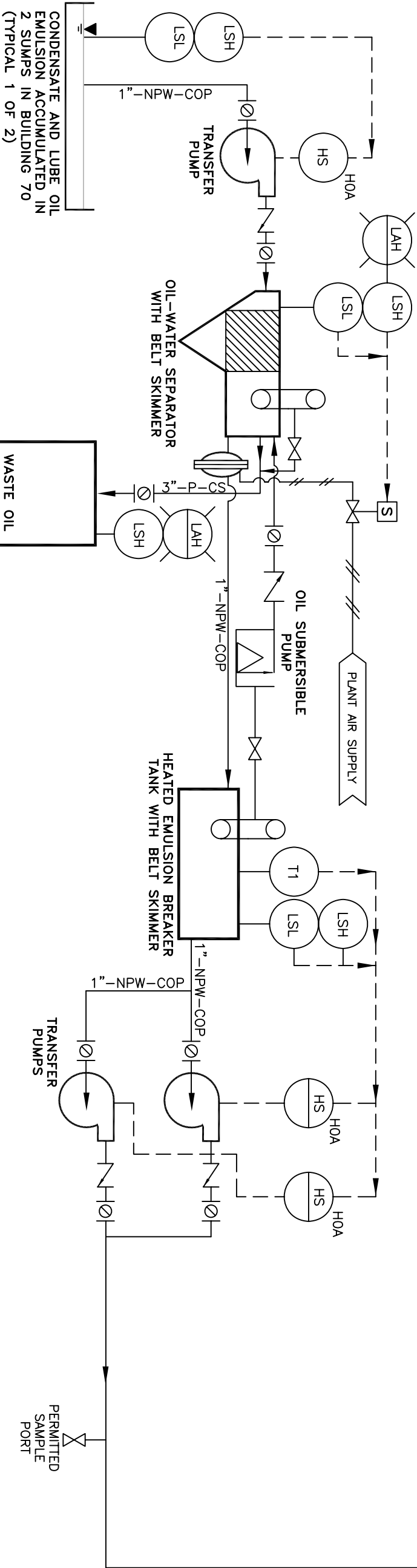
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130156-BLDG64

SHEET NO.
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REVISION NO.
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PIPING AND INSTRUMENTATION DIAGRAM FOR
BUILDING 64 BASEMENT SUMP
WATER TREATMENT SYSTEM

01/28/08



NOTE:

 Shaw Environmental Inc.	GENERAL ELECTRIC – RIVER WORKS FACILITY 1000 WESTERN AVENUE LYNN, MASSACHUSETTS
	PIPING AND INSTRUMENTATION DIAGRAM FOR BUILDING 70 WASTE WATER TREATMENT SYSTEM